

Minutes of the IASSAR Committee on Computational Stochastic Mechanics, June 16 2001, Newport Beach, California, USA
Recorded by Roger Ghanem

Attending the meeting were: G. Schueller (Chairing), M. Shinozuka, R. Zhang, G. Augusti, S. Mahadevan, E. Johnson, T. Cai, W. Zhu, R. Ghanem (Recorder of these Minutes), L. Graham, L. Bergman, G. Deodatis, H. Pradlwarter, O. Ditlevsen, A. Haldar, Y. Ohtori, W. Shiraki.

Welcome: The meeting began with a welcome to the members by G. Schueller,

Minutes: The minutes of the last meeting were approved.

Organizational G. Schueller indicated that E. Vanmarcke and A. Der-Kiureghian have apologized for not being able to attend the meeting.

L. Graham and S. Ohtori were both nominated to and approved for membership in the committee. O. Ditlevsen suggested that an effort should be directed towards recruiting more young members, and G. Deodatis suggested the need to recruit members from industry. On the same topic, A. Haldar noted that he had received an inquiry from Dr. Zhao of UTRC (United Technologies Research Center) about joining the Committee and that he had directed that inquiry to G. Schueller. A discussion ensued that highlighted the difficulties associated with recruiting industrial members into the committee.

Participation in technical Meetings:

G. Schueller noted the significant participation of the committee, through its members, in a number of technical meetings. These included the conferences at Notre Dame, Monte Carlo, MIT, ICOSSAR, UCSD and Dearborn.

A number of forthcoming conferences were highlighted as potential targets for participation by the members. These include

- WCCM'02: The Fifth World Congress on Computational Mechanics, Vienna, Austria, July 7-12, 2002.
- Eurodyn: Fifth European Conference on Structural Dynamics, Munich, Germany, September 2-5, 2002.
- European Conference on Computational Mechanics (ECCM'01, Cracow, Poland)
- World Conference on Structural Control (Lake Como, Italy)
- ASCE Engineering Mechanics Conference (Columbia University, NYC, USA)
- 4th Computational Stochastic Mechanics Conference, Siracusa, Italy, June 9-12, 2002.
- 14th US National Congress on Theoretical and Applied Mechanics (VPISU, Blacksburg, VA, USA)
- ASCE 150th year celebration will include a reliability component at its annual convention.
- Stochastic Structural Dynamics conference in 2003 will take place in China (Organized by Dr. Zhu).

A more complete list of conference that may be relevant to the participants can be accessed at the Engineering Mechanics Website links from: <http://venus.ce.jhu.edu/>

Reports of the Working Groups:

[S.1] Subcommittee on new generation codes: R. Ghanem had nothing new to report.

[S.2] Subcommittee on parallel computing: L. Bergman indicated that a draft report has been completed and the group is in the process of doing the final editing which should be completed within a month. G. Schueller provided L. Bergman with suggestions regarding the manuscript.

[S.3] Subcommittee on Monte Carlo simulation:

Efficient Algorithms: H. Pradlwarter had distributed a preliminary version of the manuscript reflecting the contributions of the Innsbruck group and of F. Poirion

Fragility Curves: G. Deodatis has 1-year old contributions from A. Der-Kiureghian, M. Grigoriu, and himself. E. Simiu of NIST will be contributing in relation to wind engineering. A. Der-Kiureghian's revised contribution is imminent while M. Grigoriu's will have to wait until he has completed his latest book.

G. Schueller noted that given the different rates of progress of the various subcommittees, an appropriate mode of publication of the outcome of the efforts may need to be adopted.

Further Issues: A. Haldar proposed that members of the subcommittee summarize their work in order to better be able to disseminate knowledge related to probabilistic modeling. A discussion ensued between G. Schueller, R. Ghanem, S. Mahadevan, and Ghanem was asked to lead an effort to investigate the application of probabilistic modeling to very-large-scale systems.

G. Deodatis indicated that micromechanics may be relevant to a number of industrial applications and suggested an effort on behalf of the committee to demonstrate this relevance. New working groups may emerge addressing these two areas.

A. Haldar highlighted the need of investigating the reason behind the discrepancy in predictions from various probabilistic models, and a comparison with the real world.

O. Ditlevsen noted that subcommittees should not turn into research committees but should reflect the state-of-the-art in the field. A discussion ensued on that point.

Next Meeting: The committee will convene twice during next year, during the ASCE EMD conference at Columbia University on June 2-5 2002 in the US and again in Europe, i.e. in Vienna during the World Conference on Computational Mechanics, on July 7-12 2002.

Other Business: None

Adjourn